NEARLY a year ago your President caught me in an unguarded moment and induced me to consent to prepare a paper for this meeting dealing with the subject, "Agronomic Problems of the South". Before attempting to enumerate and enlarge upon some of the specific problems that the agronomists should tackle in their efforts to improve southern agriculture, let me give you a few comparative figures which picture agricultural conditions in the South. The comparative figures deal with ten southern states that produce a large amount of cotton, and a specific comparison between Alabama and Iowa. The average cash returns from all crops per capita from ten southern states in 1937 amounted to $104. For Alabama, this figure was $73 and for Iowa $77. The cash returns from all livestock and livestock products from the ten southern states was $45, from Alabama $20, and from Iowa $469. Cash returns from all crops, from all livestock, and from Government payments for the ten states was $158, for Alabama $100, and for Iowa $571. These very great differences in per capita income may be readily understood from the following figures. The number of acres of farm land per capita in the ten states was 24, while in Alabama it was 14, and in Iowa it was 35. The number of acres of harvested crops for the ten cotton-producing states was 7, for Alabama it was 5, while for Iowa it was 20. In 1937, Alabama farmers planted 3,493,000 acres of corn that produced an average of 14 bushels per acre, or a total of approximately 49,000,000 bushels of corn. That same year, Iowa farmers planted 9,636,000 acres of corn with an average yield of 45 bushels per acre and a total production of 438,438,000 bushels. The Iowa farmer planted nearly three times as many acres of corn, but produced nearly ten times as many bushels as the Alabama farmer secured for his effort. Alabama farmers had 132,000 acres in oats that produced an average of 24 bushels an acre, and harvested 198,000,000 bushels of oats. The Iowa farmers planted nearly 6,000,000 acres in oats; produced an average of 33 bushels an acre, and harvested 198,000,000 bushels of oats. These figures relative to acreages and yields readily explain why the average farmer in ten southern states secured a total cash income of $78, and why the Alabama farmer secured a cash income of only $100, while the Iowa farmer secured an average of $571 per capita. It is perfectly clear that southern farmers will not be much better off than at the present time until their production of farm crops is increased. The southern farmer can never produce much in the way of livestock or livestock products until there is an adequate production of feed and forage. These opening statements clearly indicate in a general way the nature of the most important problems that the southern agronomists must tackle.

In the following pages, an attempt is made to present to this group a discussion of some of the unsolved or partially solved agronomic

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1Presented on the general program of the thirty-second annual meeting of the Society held in New Orleans, La., November 23, 1939.
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